

Notice of Allowability

Application No.

09/608,313

Applicant(s)

HOFLEHNER ET AL.

Examiner

Lawrence Shrader

Art Unit

2124

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed on 9/04/2004.
2. ☒ The allowed claim(s) is/are 1-80.
3. ☒ The drawings filed on 08 March 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

Allowable Subject Matter

1. Claims 1 – 80 are allowed.
2. Prior art taken either singly and/or in combination, does not teach or disclose a method as recited in independent claims 1, 14, and 28 and the associated machine readable medium as respectively recited in claims 41, 54, and 68 with the following features:

Claims 1 and 41:

Inserting an on-processor register allocation instruction within a machine code description of a routine as a consequence of finding a function call within the same routine. The allocation of the register space will be *less than another on-processor register allocation instruction executed prior to said inserted register allocation instruction*.

The closest prior art is Wu, U.S. Patent 6,230,317, which employs a register space allocation for a called routine, and does not disclose inserting an allocation instruction for a calling routine, nor is the allocated register space less than the space allocated by a prior allocation instruction.

Claims 14 and 54:

Inserting an on-processor register allocation instruction, based on the discovery of a loop, a software pipeline or a function call, said inserted register allocation instruction *to allocate less processor register space than had been previously allocated*.

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The closest prior art is Wu, U.S. Patent 6,230,317, which employs a register space allocation for a called routine, and does not disclose inserting an allocation instruction for a calling routine based on discovery of a loop, a software pipeline, or a function call.

Claims 28 and 68:

Performing a second allocation for a second amount of processor register space, wherein *the second amount of on-processor register space is less than the first allocation.*

The closest prior art is Wu, U.S. Patent 6,230,317, which employs a register space allocation for a called routine, and does not disclose inserting an allocation instruction for a calling routine, nor is the allocated register space less than the space allocated by a prior allocation instruction.

Thus all remaining dependent claims 2 – 13; 15 – 27; 29 – 40; 42 – 53; 55 – 67; and 69 – 80 are also allowed.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.”

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Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Shrader whose telephone number is (571) 272-3734.

The examiner can normally be reached on M-F 08:00-16:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (571) 272-3719. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lawrence Shrader
Examiner
Art Unit 2124

January 13, 2005



JOHN CHAVIS
PATENT EXAMINER
ART UNIT 2124